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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/768,034	01/30/2004	Kevin Dawson	010023-001710US	8080
37490 7590 09/27/2007 Trellis Intellectual Property Law Group, PC 1900 EMBARCADERO ROAD SUITE 109 PALO ALTO, CA 94303			EXAMINER LU, CHARLES EDWARD	
			ART UNIT 2161	PAPER NUMBER
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

*mn*

<b>Office Action Summary</b>	Application No. 10/768,034	Applicant(s) DAWSON, KEVIN	
	Examiner Charles E. Lu	Art Unit 2161	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 and 24-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 24-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

1. This Action is in response to the Request for Continued Examination dated 7/24/2007. Claims 1-16 and 24-26 and pending and rejected.

***Response to Amendments/Response to Arguments***

2. The 35 U.S.C. 101 rejection of claim 26 is withdrawn in view of the amendment. The provisional statutory double patenting rejection of claims 1-16 and 24-26 are withdrawn in view of the amendment.

3. Applicant's arguments were fully considered but were not persuasive. Applicant's arguments are drawn to the claims as amended, and Applicants added the single limitation "cumulative" to the claims. However, this amendment does not distinguish the claim from the prior art.

In the previous Action, Tso and Turnbull taught determining a frequency of occurrence of the two or more names in the identified documents (see e.g., Tso fig. 3C). In figure 3C, "Automobiles: Sub Compact Cars" is a name, and the frequency of occurrence in the set of identified documents is 12. In the combination of references, there are two or more names each with its corresponding frequency of occurrence. See prior Action.

The added limitation "cumulative" does not change the examiner's interpretation of the prior art and the amended claims. The word "cumulative" is given its plain and ordinary meaning of "acquired by or resulting from accumulation." Applicant's

specification appears to support "cumulative" because a number of hits are accumulated for each category (fig. 2). Similarly, in the prior art, the 12 documents under "Automobiles: Sub Compact Cars" as discussed above is a cumulative figure, achieved by accumulating the 12 matching results in the set of documents. The same applies for the other names (categories).

Applicant's description of the invention and how it allegedly contrasts with the prior art has been fully considered, but none of the particulars of the description are recited in the claims. Merely reciting "cumulative" does not necessitate the specific interpretation that Applicant intends.

Furthermore, the specification does not appear to support the discussion of the invention in the amendment, p. 7, ll. 5-14. The discussion mentions ranking documents, but the Specification merely ranks related categories (fig. 2) for a search term (fig. 1). The Examiner respectfully requests that the Applicant point out various sections in the specification that support the discussion in the Amendment, p. 7, ll. 5-14.

Because the amended word "cumulative" is not interpreted to change the previous interpretation of the claims, the same motivation to combine applies in the present claims. Therefore, the art rejection is maintained.

#### ***Claim Rejections - 35 USC § 103***

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

**4. Claims 1-16 and 24-26 are rejected under 35 U.S.C. 103(a) as being**

**unpatentable over Turnbull et al of record (US 2002/0103789) in view of Tso et al (US 6385602).**

**As to claim 1**, Turnbull teaches the following claimed subject matter:

System including a user input device and user output device (fig. 1, #20, fig. 4);

Accepting first (fig. 4, #66) and second (fig. 4, #80) search terms from user input device, the second term (#80) associated with a predetermined list of two or more names (#82);

Identifying documents from the database the satisfy the first search term (para. 0088);

Determining an occurrence of the names in the identified documents (#82, para, 0060-0063);

Presenting at least a portion of the identified documents to a user by using the output device (fig. 1, #20, fig. 4) wherein the presented identified documents are ordered according to the names (fig. 4, #82, 86, related text).

Turnbull does not expressly teach "cumulative frequency of occurrence of names within identified documents."

However, Tso teaches determining a cumulative frequency of occurrence of a category name(s) (col. 5, ll. 35-59, fig. 3C, col. 8, ll. 60-67) in identified documents. Turnbull discloses a plurality of names (categories) (#82) for facilitating browsing various found documents (see Turnbull).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Turnbull with the above teaching of Tso, such

that the names (Turnbull, #82) are additionally presented according to cumulative frequency of occurrence of a category name such as in Tso, fig. 3C. The motivation would have been to help the user in determining which category he or she might want to choose, as taught by Tso (col. 8, ll. 65-67).

Turnbull and Tso as applied above do not expressly teach "ordering" according to the determined cumulative frequency of occurrence of the names within the identified documents.

However, as discussed above, Turnbull provides a user interface with a category name listing (e.g., fig. 4). Tso discloses listing the number of hit counts next to the category (see fig. 3C), and calculating a cumulative frequency of occurrence of names within identified documents (see above). Tso in the combination further suggests ordering (e.g., in decreasing order) according to the frequency of occurrence because Tso teaches (i), search results are presented in a sequential list of matching data items ranked by relevance in decreasing order (col. 1, ll. 40-50). (ii) qualifying data items are sorted by one or more attributes to generate sorted search results (col. 5, ll. 39-41), (iii) categories within a group may be presented to users in any order, and some orderings may be preferable to others (col. 7, ll. 50-54), and (iv) category relevance may be calculated in any number of ways (col. 7, ll. 59-61).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to further modify Turnbull and Tso with the above, such that the results are listed in decreasing order of the number of hits. The motivation would have been to further facilitate helping the user in determining which category he

or she might want to choose, as taught by Tso (col. 8, ll. 65-67), since categories within a group may be presented to users in any order, and some orderings may be preferable to others (col. 7, ll. 50-54).

**As to claim 2**, Turnbull, as applied above, further teaches wherein the predetermined list of names (#82) is created at least in part by receiving signals from a user interface (e.g., user interface component in #80);

**As to claim 3**, Turnbull, as applied above, further teaches wherein the predetermined list of names is created at least in part by receiving signals from a process. This must happen for Turnbull to be functional in a computer environment as a browsing and searching system (e.g., see the display on fig. 4);

**As to claim 4**, Turnbull, as applied above, further teaches wherein the second term is selected from a list of context names (e.g., pull down menu #80);

**As to claim 5**, Turnbull, as applied above, further teaches wherein identifying documents includes sending a database query to a database server, and receiving search results from a database server. This must happen for Turnbull to be functional in a computer environment as a browsing and searching system (e.g., see fig. 1-2 and related text).

**As to claim 6**, Turnbull, as applied above, further teaches wherein the search results include document identifiers (fig. 4, #86).

**As to claim 7**, Turnbull, as applied above, further teaches wherein the first search term includes a keyword (para. 0088).

**As to claim 8**, Turnbull, as applied above, further teaches wherein determining

includes searching the identified documents to determine if a name is present in a document (see Turnbull, e.g., fig. 2, para. 0088, Tso, col. 5, ll. 20-60).

**As to claim 9**, Turnbull, as applied above, further teaches wherein searching includes pre-compiling a list of identifiers for documents in which a name occurs (e.g., the sub-categories is a list of identifiers for documents such as search results, in which a name occurs) and comparing the identified documents with names identified in the pre-compiled list to determine matches (this comparison has to happen for matches #86 to be displayed according to category and sub category #80 and #82).

**As to claim 10**, Tso, as applied above, further teaches wherein presentation of documents includes listing document identifiers on a display screen in decreasing order of the frequency of occurrence of two or more names. See above discussion of claim 1.

**As to claim 11**, Tso, as applied above, further teaches ordering a list of the two or more associated names according to a frequency of occurrence of the associated terms in items. See above discussion of claim 1.

**As to claim 12**, Tso, as applied above, further teaches displaying a number associated with each name to indicate a number of documents in which each name occurs. See discussion above for claim 1 and fig. 3C, #332).

**As to claim 13**, Turnbull, as applied above, further teaches automatically defining two or more terms associated with the second term. This is seen in the automatic underlining of terms when subcategories corresponding to them are identified (see fig. 4, #84).

**As to claim 14**, Turnbull, as applied above, further teaches accepting signals



from a user input device to define two or more terms associated with the second term (e.g., para. 0066).

**As to claim 15 and claim 16**, Turnbull, as applied above, does not expressly teach wherein the second term includes the word "genes" and an associated term includes a gene name, or wherein the second term includes the word "regions" and an associated term includes a region name.

However, Turnbull discloses categories, which includes words and associated terms (meeting the limitation of "term" and "associated term", see fig. 7-8) and an interface displaying categories and associated names (see e.g., fig. 4, #80, #82). Turnbull further discloses that the hierarchies are not limited (para. 0065, 0066), the user may establish categories (para. 0066), and the user may search the entire Web (fig. 4, #66).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Turnbull and Tso with the above, such that a category for genes and associated names as subcategories, as well as a category for regions and associated names as subcategories, would be implemented within the search system and displayed on the interface of fig. 4 of Turnbull. The motivation would have been to support a user searching on the Web for various items, in this case, content pointers (fig. 4, #86) to gene-related documents, and region-related documents.

**Claim 24** is drawn to an apparatus claiming the same invention as claim 1, in addition to a processor coupled to a user input device, a user output device, and a machine readable medium, all of which must be present in Turnbull for successful

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operation in a computer environment.

**As to claims 25-26, see the discussion of claim 24 above.**


**Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles E. Lu whose telephone number is (571) 272-8594. The examiner can normally be reached on 8:30 - 5:00; M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Apu Mofiz can be reached at (571) 272-4080. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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9/20/2007

  
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